EstateMaster

Calculation Guide

Estate Master DF Summary Report Performance Indicators

August 2012

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Introduction

Estate Master has put together this document to assist you with working through the different calculations that appear on the developer's Summary report within the Estate Master DF (Development Feasibility) software

The objective for this document is to break down any questions you may have regarding how Estate Master calculates each of the different sections within the Summary report itself.

The Developers Summary report is broken up into three broad sections which we will investigate further. These are:

1. Total revenue (Including sales and revenue)
2. Total Project costs
3. Performance Indicators: The performance indicators are commonly used to look at how the project is performing with critical business decisions often being made from the information provided by these different indicators. We have provided a summary of the different calculations below.

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Summary Report - Performance Indicators

1. Gross Development Profit

This is calculated by subtracting a company's total expenses from total revenue, thus showing what the company has earned (or lost) in a given period of time.

This output is only displayed on the Summary report if there are profit distributions payable to the land owner or lenders, otherwise on the Net Development Profit is displayed.

Calculation

		Formula	Example
Gross Development Profit =	1	Total Revenue	87,021,353
		minus	-
	2	Total Costs	78,245,503
			8,775,850

	Interest Received	201,272
	TOTAL REVENUE (before GST paid)	96,220,498
	Less GST paid on all Revenue	(9,199,145)
1	**TOTAL REVENUE (after GST paid)**	**87,021,353**
	COSTS	
	Land Purchase Cost	13,750,000
	Land Transaction Costs	137,500
	Construction Costs (inc. Contingency)	50,245,650
	Other Construction Costs	47,853,000
	Contingency	2,392,650
	Professional Fees	5,799,006
	Statutory Fees and Contributions	2,904,236
	Miscellaneous Costs	264,000
	Project Contingency (Project Reserve)	1,435,838
	Land Holding Costs	442,434
	Finance Charges (inc. Fees)	325,600
	Interest Expense	8,144,122
	TOTAL COSTS (before GST reclaimed)	83,448,387
	Less GST reclaimed	(7,315,967)
2	**TOTAL COSTS (after GST reclaimed)**	**78,245,503**

PERFORMANCE INDICATORS	
[1] Gross Development Profit	8,775,850
[2] **Net Developer's Profit after Profit Share**	**8,337,058**
[3] **Development Margin (or Profit/Risk Margin)**	**9.60%**
[4] Residual Land Value (based on 20% Target Margin)	2,028,169

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2. Net Development Profit

Often referred to as also 'net profit', it is similar to 'Gross Development Profit' but also includes any profit share distributions.

Calculation

		Formula	Example
Net Development Profit =	1	Total Revenue	3,295,475,883
		minus	-
	2	Total Costs	2,698,797,522
		minus	-
	3	Profit Share	59,667,836
			537,010,525

	Interest Received	-
	Other Income	-
1	**TOTAL REVENUE**	**3,295,475,883**
	COSTS	
	Land Purchase Cost	900,000,000
	Land Transaction Costs	-
	Construction Costs (inc. Contingency)	1,177,629,247
	Other Construction Costs	1,070,572,043
	Contingency	107,057,204
	Professional Fees	152,987,839
	Statutory Fees and Contributions	208,299,269
	Miscellaneous Costs 1	-
	Miscellaneous Costs 2	-
	Miscellaneous Costs	-
	Project Contingency (Project Reserve)	74,595,757
	Land Holding Costs	195,985
	Pre-Sale Commissions	-
	Finance Charges (inc. Fees)	3,500,000
	Interest Expense	181,589,424
	Plus Corporate Tax	-
2	**TOTAL COSTS**	**2,698,797,522**

PERFORMANCE INDICATORS

[1]	Gross Development Profit	596,678,361
[2]	**Net Developer's Profit after Profit Share**	**537,010,525**
[3]	**Development Margin (or Profit/Risk Margin)**	**21.04%**
[4]	Residual Land Value (based on 25% Target Margin)	810,224,708

Footnotes:

1. Development Profit: is total revenue less total cost including interest paid and received
3 2. Developer's Net Profit after distribution of gross profit of AUD59,667,836 to Land Owner
3. Development Margin: is profit (gross profit before profit share) divided by total development costs (inc selling costs).

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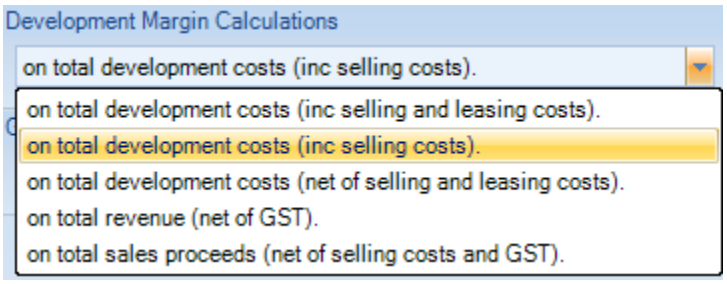
3. Development Margin

Also known as the 'Profit/Risk Factor', it is commonly used by developers as a reflection of profitability and is the percentage return of net profit over development costs as a standard and common calculation.

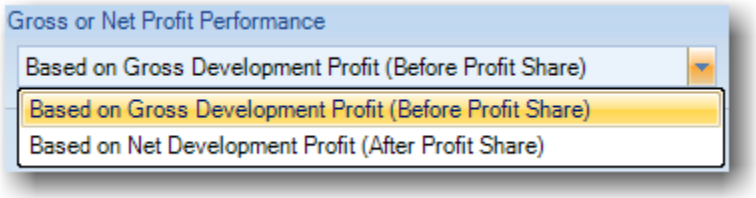
Estate Master however takes the developers margin one more step and provides five different methods for the margin calculation as shown below.

Calculation

There are 5 different methods for calculating the Development Margin on the Summary Report, set via the Preferences.



In addition to these Preferences, the Development Margin is also impacted by the Preference to display Performance Indicators Before or After Profit Share is paid out (i.e. on Gross or Net Development Profit)



- If 'Based on Gross Development Profit' is selected, then the numerator in the equation is the 'Gross Development Profit' output on the Summary sheet (only outputted if there are profit share distributions being paid) (item 1 below)
- If 'Based on Net Development Profit' is selected, then the numerator in the equation is the 'Net Development Profit' output on the Summary sheet (item 2 below)

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Preference 1 - On Total Development Costs (inc Selling and Leasing Costs)

		Formula	Example
Development Margin =	1	Development Profit (Net or Gross)	11,647,832
		Divided by	/
	2	(Total Costs	(76,116,245
		minus	-
	3	Selling Costs	(2,205,897)
		minus	-
	4	Purchaser's Costs	0
		minus	-
	5	Outgoings & Vacancies	0
		minus	-
	6	Letting Fees	(1,298,424)
		minus	-
	7	Incentives	(2,994,539)
		minus	-
	8	Other Leasing Costs)	0)
			14.10%

3	Less Selling Costs				(2,205,897)
4	Less Purchasers Costs				-
	NET SALE PROCEEDS				96,545,966
		Average Yield	SqM	AUD/SqM/annum	AUD
	Rental Income	8.0%	17,226.7	433.2	4,579,018
	Commercial	8.0%	17,000.0	400.0	4,196,136
	Parking	8.0%	226.7	2,925.0	382,883
5	Less Outgoings & Vacancies				-
6	Less Letting Fees				(1,298,424)
7	Less Incentives (Rent Free and Fit-out Costs)				(2,994,539)
8	Less Other Leasing Costs				-
	NET RENTAL INCOME				286,056
	Interest Received				206,540
	TOTAL REVENUE (before GST paid)				97,038,563
	Less GST paid on all Revenue				(9,274,486)
	TOTAL REVENUE (after GST paid)				**87,764,077**
	COSTS				
	Land Purchase Cost				13,750,000
	Land Transaction Costs				137,500
	Construction Costs (inc. Contingency)				50,245,650
	Other Construction Costs				47,853,000
	Contingency				2,392,650
	Professional Fees				5,799,006
	Statutory Fees and Contributions				2,904,236
	Miscellaneous Costs				264,000
	Project Contingency (Project Reserve)				1,435,838
	Land Holding Costs				442,434
	Finance Charges (inc. Fees)				325,600
	Interest Expense				8,129,397
	TOTAL COSTS (before GST reclaimed)				83,433,662
	Less GST reclaimed				(7,317,417)
2	**TOTAL COSTS (after GST reclaimed)**				**76,116,245**
	PERFORMANCE INDICATORS				
1	[1] **Net Development Profit**				**11,647,832**
	[3] **Development Margin (or Profit/Risk Margin)**				**14.10%**

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Preference 2 - On Total Development Costs (inc Selling Costs)

		Formula	Example
Development Margin =	1	Development Profit (Net or Gross)	11,647,832
		Divided by	/
	2	(Total Costs	(76,116,245
		minus	-
	3	Selling Costs	(2,205,897)
		minus	-
	4	Purchaser's Costs	0
		plus	+
	ⓘ	GST/VAT on Leasing Costs)	271,039)
			14.82%

ⓘ Note: Since we are not factoring 'Leasing Costs' as part of Development Costs in this option, we need to exclude any GST/VAT Reclaim on Leasing Costs from the calculation of 'Total Costs'. This figure is not explicitly displayed on the Summary report. It can be calculated manually by determining the GST/VAT that is reclaimable for items 5, 6,7 and 8 that make up Leasing Costs.

3	Less Selling Costs				(2,205,897)
4	Less Purchasers Costs				-
	NET SALE PROCEEDS				96,545,966
		Average Yield	SqM	AUD/SqM/annum	AUD
	Rental Income	8.0%	17,226.7	433.2	4,579,018
	Commercial	8.0%	17,000.0	400.0	4,196,136
	Parking	8.0%	226.7	2,925.0	382,883
5	Less Outgoings & Vacancies				-
6	Less Letting Fees				(1,298,424)
7	Less Incentives (Rent Free and Fit-out Costs)				(2,994,539)
8	Less Other Leasing Costs				-
	NET RENTAL INCOME				286,056
	Interest Received				206,540
	TOTAL REVENUE (before GST paid)				97,038,563
	Less GST paid on all Revenue				(9,274,486)
	TOTAL REVENUE (after GST paid)				**87,764,077**
	COSTS				
	Land Purchase Cost				13,750,000
	Land Transaction Costs				137,500
	Construction Costs (inc. Contingency)				50,245,650
	Other Construction Costs				47,853,000
	Contingency				2,392,650
	Professional Fees				5,799,006
	Statutory Fees and Contributions				2,904,236
	Miscellaneous Costs				264,000
	Project Contingency (Project Reserve)				1,435,838
	Land Holding Costs				442,434
	Finance Charges (inc. Fees)				325,600
	Interest Expense				8,129,397
	TOTAL COSTS (before GST reclaimed)				83,433,662
	Less GST reclaimed				(7,317,417)
2	**TOTAL COSTS (after GST reclaimed)**				**76,116,245**
	PERFORMANCE INDICATORS				
1	**Net Development Profit**				**11,647,832**
3	**Development Margin (or Profit/Risk Margin)**				**14.82%**

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Preference 3 - On Total Development Costs (net of Selling and Leasing Costs)

		Formula	Example
Development Margin =	1	Development Profit (Net or Gross)	11,647,832
		Divided by	/
	2	(Total Costs	(76,116,245
		plus	+
	ⓘ	GST/VAT on Selling Costs	200,536
		plus	+
	ⓘ	GST/VAT on Leasing Costs)	271,039)
			15.21%

ⓘ Note: Since we are not factoring 'Selling Costs' or 'Leasing Costs' as part of Development Costs in this option, we need to exclude any GST/VAT Reclaim on these from the calculation of 'Total Costs'. This figure is not explicitly displayed on the Summary report. It can be calculated manually by determining the GST/VAT that is reclaimable for items 3,4, 5, 6,7 and 8 that make up Selling and Leasing Costs.

3	Less Selling Costs				(2,205,897)
4	Less Purchasers Costs				-
	NET SALE PROCEEDS				96,545,966
		Average Yield	SqM	AUD/SqM/annum	AUD
	Rental Income	8.0%	17,226.7	433.2	4,579,018
	Commercial	8.0%	17,000.0	400.0	4,196,136
	Parking	8.0%	226.7	2,925.0	382,883
5	Less Outgoings & Vacancies				-
6	Less Letting Fees				(1,298,424)
7	Less Incentives (Rent Free and Fit-out Costs)				(2,994,539)
8	Less Other Leasing Costs				-
	NET RENTAL INCOME				286,056
	Interest Received				206,540
	TOTAL REVENUE (before GST paid)				97,038,563
	Less GST paid on all Revenue				(9,274,486)
	TOTAL REVENUE (after GST paid)				**87,764,077**
	COSTS				
	Land Purchase Cost				13,750,000
	Land Transaction Costs				137,500
	Construction Costs (inc. Contingency)				50,245,650
	Other Construction Costs				47,853,000
	Contingency				2,392,650
	Professional Fees				5,799,006
	Statutory Fees and Contributions				2,904,236
	Miscellaneous Costs				264,000
	Project Contingency (Project Reserve)				1,435,838
	Land Holding Costs				442,434
	Finance Charges (inc. Fees)				325,600
	Interest Expense				8,129,397
	TOTAL COSTS (before GST reclaimed)				83,433,662
	Less GST reclaimed				(7,317,417)
2	**TOTAL COSTS (after GST reclaimed)**				**76,116,245**
	PERFORMANCE INDICATORS				
1	[1] **Net Development Profit**				**11,647,832**
	[3] **Development Margin (or Profit/Risk Margin)**				**15.21%**

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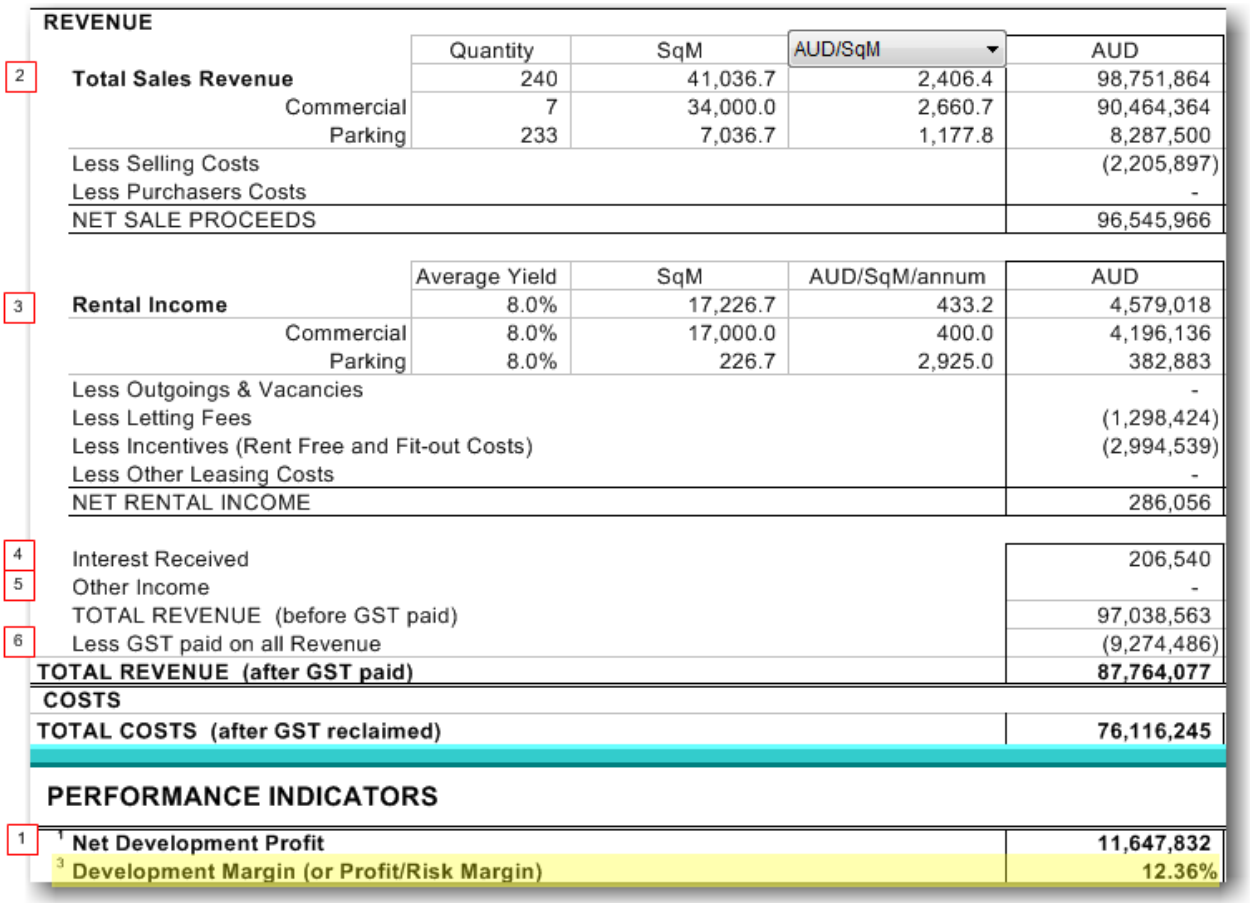
Preference 4 - On Total Revenue (net of Tax)

		Formula	Example
Development Margin =	1	Development Profit (Net or Gross)	11,647,832
		Divided by	/
	2	(Total Sales Revenue	(98,751,864
		plus	+
	3	Rental Income	4,579,018
		plus	+
	4	Interest Received	206,540
		plus	+
	5	Other Income	0
		plus	+
	6	Tax Paid on all Revenue)	(9,274,486))
			12.36%



REVENUE				
	Quantity	SqM	AUD/SqM	AUD
2 **Total Sales Revenue**	240	41,036.7	2,406.4	98,751,864
Commercial	7	34,000.0	2,660.7	90,464,364
Parking	233	7,036.7	1,177.8	8,287,500
Less Selling Costs				(2,205,897)
Less Purchasers Costs				-
NET SALE PROCEEDS				96,545,966
	Average Yield	SqM	AUD/SqM/annum	AUD
3 **Rental Income**	8.0%	17,226.7	433.2	4,579,018
Commercial	8.0%	17,000.0	400.0	4,196,136
Parking	8.0%	226.7	2,925.0	382,883
Less Outgoings & Vacancies				-
Less Letting Fees				(1,298,424)
Less Incentives (Rent Free and Fit-out Costs)				(2,994,539)
Less Other Leasing Costs				-
NET RENTAL INCOME				286,056
4 Interest Received				206,540
5 Other Income				-
TOTAL REVENUE (before GST paid)				97,038,563
6 Less GST paid on all Revenue				(9,274,486)
TOTAL REVENUE (after GST paid)				**87,764,077**
COSTS				
TOTAL COSTS (after GST reclaimed)				**76,116,245**
PERFORMANCE INDICATORS				
1 [1] **Net Development Profit**				**11,647,832**
[3] **Development Margin (or Profit/Risk Margin)**				**12.36%**

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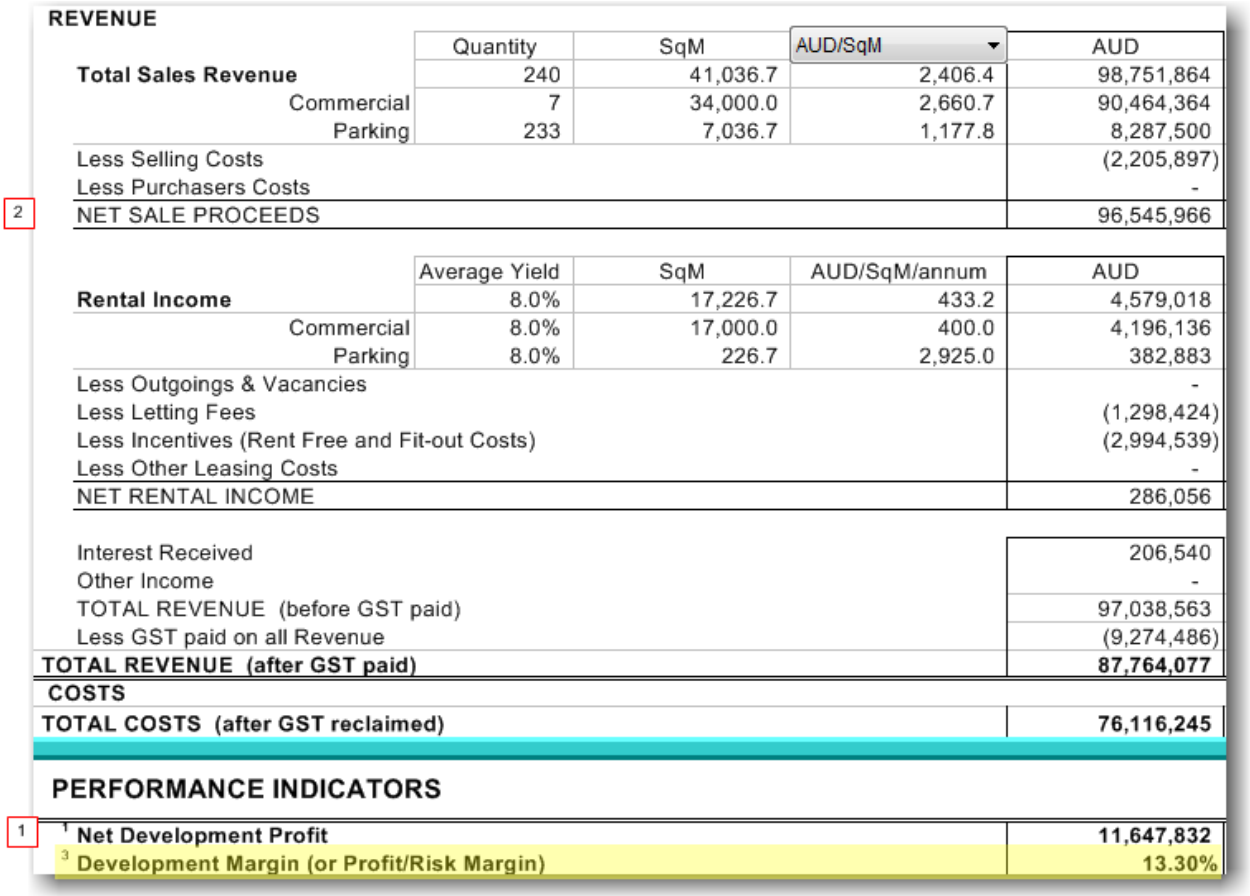
Preference 5 - On Total Sale Proceeds (net of Selling Costs)

		Formula	Example
Development Margin =	1	Development Profit (Net or Gross)	11,647,832
		Divided by	/
	2	(Net Sales Proceeds	(96,545,966
		minus	-
	ⓘ	Tax Paid on Sales)	8,977,442)
			13.30%

ⓘ Tax on Sales is not explicitly displayed on the Summary report. It can be calculated manually by determining the GST/VAT/Sales Tax that is reclaimable for all individual Sales Revenue items.



REVENUE				
	Quantity	SqM	AUD/SqM	AUD
Total Sales Revenue	240	41,036.7	2,406.4	98,751,864
Commercial	7	34,000.0	2,660.7	90,464,364
Parking	233	7,036.7	1,177.8	8,287,500
Less Selling Costs				(2,205,897)
Less Purchasers Costs				-
2 NET SALE PROCEEDS				96,545,966
	Average Yield	SqM	AUD/SqM/annum	AUD
Rental Income	8.0%	17,226.7	433.2	4,579,018
Commercial	8.0%	17,000.0	400.0	4,196,136
Parking	8.0%	226.7	2,925.0	382,883
Less Outgoings & Vacancies				-
Less Letting Fees				(1,298,424)
Less Incentives (Rent Free and Fit-out Costs)				(2,994,539)
Less Other Leasing Costs				-
NET RENTAL INCOME				286,056
Interest Received				206,540
Other Income				-
TOTAL REVENUE (before GST paid)				97,038,563
Less GST paid on all Revenue				(9,274,486)
TOTAL REVENUE (after GST paid)				**87,764,077**
COSTS				
TOTAL COSTS (after GST reclaimed)				**76,116,245**
PERFORMANCE INDICATORS				
1 [1] **Net Development Profit**				**11,647,832**
[3] **Development Margin (or Profit/Risk Margin)**				**13.30%**

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4. Residual Land Value (Based on % Development Margin)

The Residual Land Value based on the Target Development Margin is the maximum price for the land that the developer would pay to make the calculated development margin equal the target hurdle rate. The target hurdle rate is essentially the developer's required profit margin return for the project, also referred to as a 'Profit and Risk Factor'.

The Development Margin has been the traditional method of development feasibility analysis in the past and is beneficial for short term projects. However it does have its shortcomings – it does not account for the time value of money and its results can be misleading for projects that extended beyond two or more years. Two projects may have the same net profit, but due to differences in the timing of cash inflows and outflows, one project may be realising its profit earlier than the other. Therefore, it you take into account the old adage "a bird in the hand is worth two in the bush", then even though the projects have the same profit, a prudent developer/investor would chose the project that achieves its profit earlier.

From the example below you can see that the Development Margin for the proposed development project is only achieving 14.10% based on an assumed Land Purchase Price of 13,750,000. In order to achieve the Target Development Margin of 25% the developer would need to purchase the land for a maximum residual land value of 8,921,282.

COSTS	
Land Purchase Cost	13,750,000
Land Transaction Costs	137,500
Construction Costs (inc. Contingency)	50,245,650
Other Construction Costs	47,853,000
Contingency	2,392,650
Professional Fees	5,799,006
Statutory Fees and Contributions	2,904,236
Miscellaneous Costs	264,000
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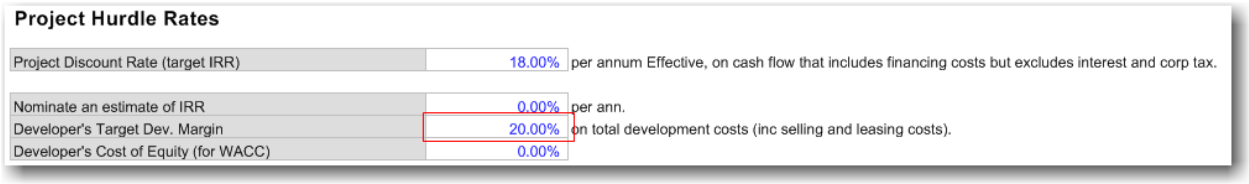
Less GST reclaimed	(7,317,417)
TOTAL COSTS (after GST reclaimed)	**76,116,245**
PERFORMANCE INDICATORS	
[1] **Net Development Profit**	**11,647,832**
[3] **Development Margin (or Profit/Risk Margin)**	**14.10%**
[4] Residual Land Value (based on 20% Target Margin)	8,921,282

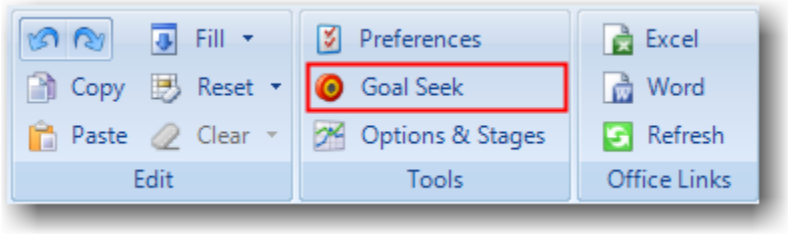
Calculation

There is no specific formula that calculates the Residual Land Value. It is a result that is calculated through undertaking a 'goal seek' - the land price is manipulated up and down until the Development Margin matches the developer's desired 'Target Development Margin'.

The 'Target Development Margin' is set on the Input sheet under 'Hurdle Rates'

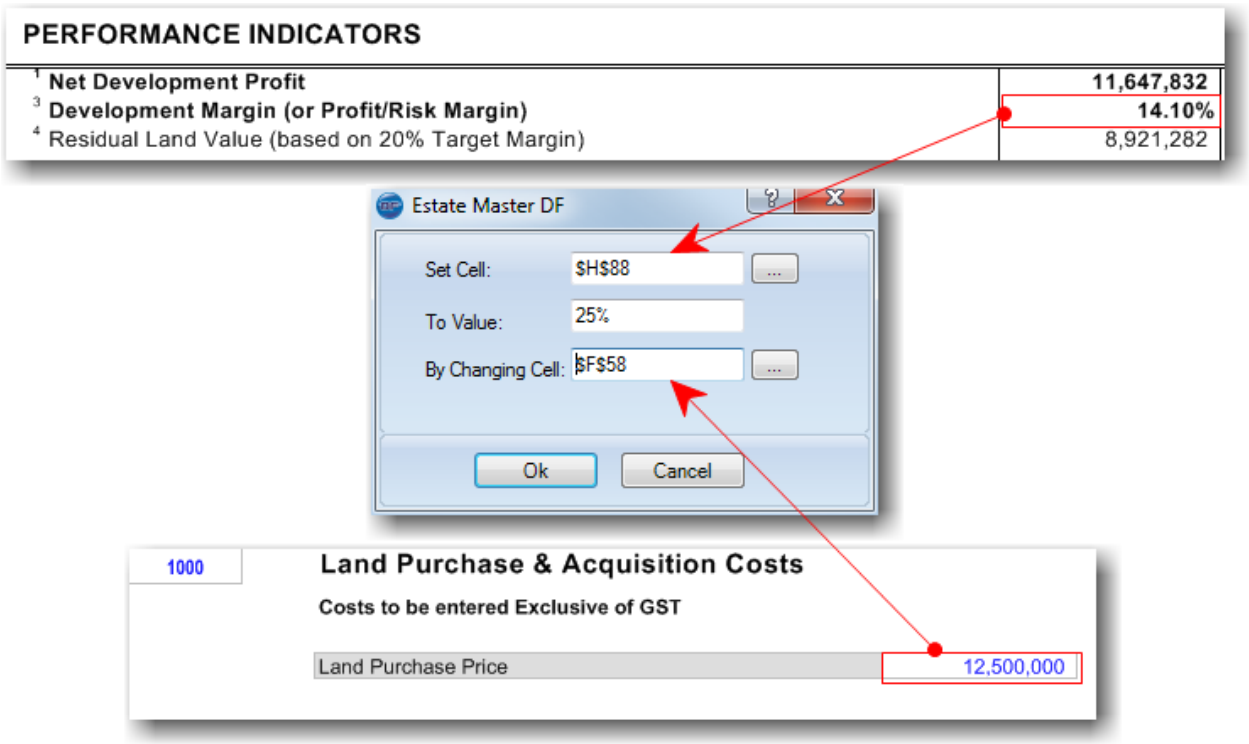


Even though the Residual Land Value calculation is not a formula, it can still be easily recreated and demonstrated using Estate Masters Goal Seek function.



Once you have opened the Goal Seek function, set the following parameters:

- Set Cell: The Development Margin output on the Summary report
- To Value: The Target Development Margin
- By Changing Cell: The Land Purchase Price input on the Input sheet

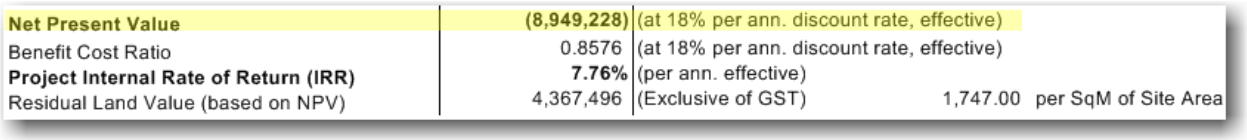


Once you press OK on the Goal Seek, it will then calculate an answer in the Land Purchase Price input on the Input sheet.

5. Net Present Value

The Net Present Value (NPV) is the difference between the present value of cash inflows (revenue) and the present value of cash outflows (costs), discounted by a user-defined 'Discount Rate'.

NPV compares the value of a dollar today to the value of that same dollar in the future, taking inflation and returns into account. If the NPV of a prospective project is positive, it should be accepted. However, if NPV is negative, the project should probably be rejected because cash flows will also be negative.



Net Present Value	**(8,949,228)**	(at 18% per ann. discount rate, effective)		
Benefit Cost Ratio	0.8576	(at 18% per ann. discount rate, effective)		
Project Internal Rate of Return (IRR)	**7.76%**	(per ann. effective)		
Residual Land Value (based on NPV)	4,367,496	(Exclusive of GST)	1,747.00	per SqM of Site Area

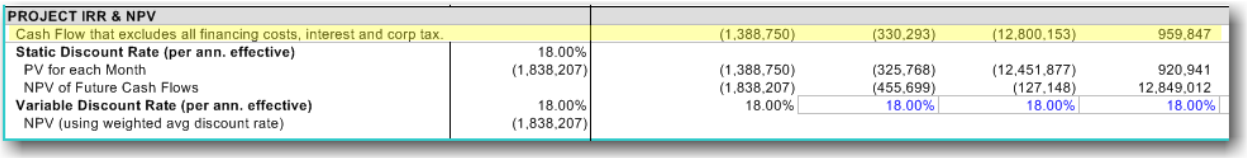
Calculation

The standard Excel function for NPV is used in Estate Master:

NPV (rate, value1, value2, ...) + value0

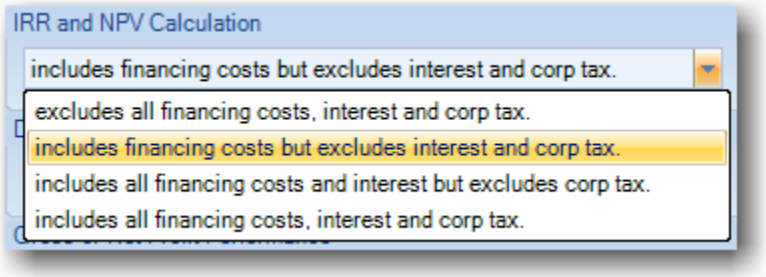
Where:
rate = is the rate of discount over the length of one period.
Value0 = the first time period (period zero). The first time period in the cash flow is not discounted, and therefore is not added within the NPV function. It is simply added outside of the function.
Value1, value2, ...= are the arguments representing the payments and income.

The cash flow data that is used to calculate the NPV is also summarised in the 'Project IRR & NPV' section of the Cash Flow worksheet.

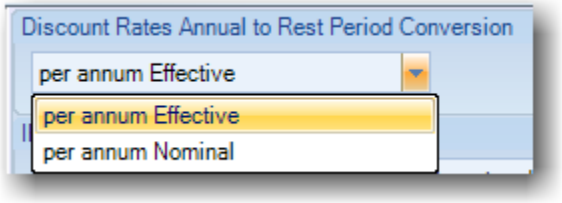


PROJECT IRR & NPV					
Cash Flow that excludes all financing costs, interest and corp tax.		(1,388,750)	(330,293)	(12,800,153)	959,847
Static Discount Rate (per ann. effective)	18.00%				
PV for each Month	(1,838,207)	(1,388,750)	(325,768)	(12,451,877)	920,941
NPV of Future Cash Flows		(1,838,207)	(455,699)	(127,148)	12,849,012
Variable Discount Rate (per ann. effective)	18.00%	18.00%	18.00%	18.00%	18.00%
NPV (using weighted avg discount rate)	(1,838,207)				

There are 4 different methods for calculating the Net Present Value on the Summary Report, set via the Preferences. They relate to the specific cash flow that is used to calculate the NPV, most notably if it includes financing costs, interest and corporate tax.



In addition to these Preferences, the Net Present Value is also impacted by the Preference to convert the Discount Rate on either an Effective or Nominal Basis. This is required as the 'Discount Rate' that is entered by the user is an annual rate, however the cash flow that the NPV is calculated on can have monthly, quarterly or half-yearly rests, depending on how the user has decided to set the model up.



	Formula	Example
'per annum Nominal'	D/T	18.00% / 12 = 1.5% per month
'per annum Effective'	$[(D + 1)^{1/T}]-1$	$[(18.00\% + 1)^{1/12}]- 1= 1.39\%$ per month

Where:
D = is the annual discount rate.
T = The number of rest periods per annum (i.e Monthly = 12, Quarterly = 4, etc)

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Preference 1 - On Cash Flow Excluding all Financing Costs, Interest and Corporate Tax

		Formula
NPV =	1	NPV (Discount Rate *entered in Input sheet converted from annual to rest period rate*
		,
	2	*Time period 1 onwards for* Net Cash Flow before Interest & Corporate Tax
		plus
	3	*Time period 1 onwards for* Financing Costs)
		plus
	4	*Time period 0 for* Net Cash Flow (before Interest & Corporate Tax)
		plus
	5	*Time period 0 for* Financing Costs

Project Hurdle Rates

Project Discount Rate (target IRR)	1	18.00%	per annum Effective

Note: The above Discount Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the NPV function.

PROJECT CASH FLOW	TOTAL	GST	0 Sep-08	1 Oct-08	2 Nov-08
PROJECT CASH FLOW					
REVENUE					
Gross Sales Revenue	98,751,864		-	-	-
Selling Costs	(2,205,897)		-	-	-
Gross Rental Income	4,579,018		-	-	-
Leasing Costs	(4,292,963)		-	-	-
Other Income	-		-	-	-
Interest Received*	-		-	-	-
GST Payments (Liabilities)	(9,274,486)		-	-	-
TOTAL NET REVENUE	87,557,537		-	-	-
COSTS					
Land and Acquisition	13,887,500		1,388,750	-	12,498,750
Professional Fees	5,799,006		-	323,692	323,692
Construction Costs	50,245,650		-	-	-
Statutory Fees and Contributions	2,904,236		-	-	-
Miscellaneous Costs	-		-	-	-
Miscellaneous Costs	-		-	-	-
Miscellaneous Costs	264,000		-	-	-
Project Contingency (Reserve)	1,435,838		-	7,851	7,851
Land Holding Costs	442,434		-	-	-
Pre-Sale Commissions	-		-	-	-
Financing Costs (exc Fees)	296,000		5 18,500	3 -	-
GST Refunds (Input Credits)	(7,287,817)		-	(1,250)	(30,140)
TOTAL COSTS	67,986,848		1,407,250	330,293	12,800,153
Net Cash Flow (before Interest & Corporate Tax)	19,570,688		4 (1,407,250)	2 (330,293)	(12,800,153)
Cumulative Cash Flow			(1,407,250)	(1,737,543)	(14,537,695)
Corporate Tax	-		-	-	-
Net Cash Flow (before Interest & after Corporate Tax)	19,570,688		(1,407,250)	(330,293)	(12,800,153)
Cumulative Cash Flow			(1,407,250)	(1,737,543)	(14,537,695)

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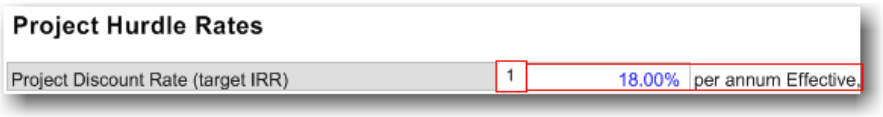
Preference 2 - On Cash Flow Including Financing Costs but Excluding Interest and Corporate Tax

		Formula
NPV =	1	NPV (Discount Rate *entered in Input sheet converted from annual to rest period rate*
		,
	2	*Time period 1 onwards for* Net Cash Flow before Interest & Corporate Tax
		plus
	3	*Time period 1 onwards for* Application and Line Fees for Loans 1, 2, 3 and 4)
		plus
	4	*Time period 0 for* Net Cash Flow (before Interest & Corporate Tax)
		plus
	5	*Time period 0 for* Application and Line Fees for Loans 1, 2, 3 and 4



Project Hurdle Rates			
Project Discount Rate (target IRR)	1	18.00%	per annum Effective.

Note: The above Discount Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the NPV function.

PROJECT CASH FLOW	TOTAL	0 Sep-08	1 Oct-08	2 Nov-08	3 Dec-08
Net Cash Flow (before Interest & Corporate Tax)	19,570,688	4 (1,407,250)	2 (330,293)	(12,800,153)	959,847
Cumulative Cash Flow		(1,407,250)	(1,737,543)	(14,537,695)	(13,577,848)
Corporate Tax	-	-	-	-	-
Net Cash Flow (before Interest & after Corporate Tax)	19,570,688	(1,407,250)	(330,293)	(12,800,153)	959,847
Cumulative Cash Flow		(1,407,250)	(1,737,543)	(14,537,695)	(13,577,848)
FINANCING					
Equity					
Manual Adjustments (Inject + / Repay -)		0	0	0	0
Injections	71,428,780	5,500,000	-	-	-
Interest Charged	-	-	-	-	-
Equity Repayment	81,593,434	-	-	-	-
Less Profit Share	-	-	-	-	-
Equity Balance	10,164,654	(5,500,000)	(5,500,000)	(5,500,000)	(5,500,000)
Equity Cash Flow	10,164,654	(5,500,000)	-	-	-
Project Cash Account					
Surplus Cash Injection	96,106,432	5,500,000	-	-	959,847
Cash Reserve Drawdown	(96,312,895)	(1,407,250)	(330,293)	(3,778,840)	-
Interest on Surplus Cash	206,463	-	8,527	7,856	-
Surplus Cash Balance		4,092,750	3,770,984	-	959,847
Loan 1 - Lender 1					
Manual Adjustments (Drawdown - / Repay +)	-	0	0	0	0
Drawdown	(64,072,522)	-	-	(9,021,313)	-
Loan Interest Rate (%/ann)		7.00%	7.00%	7.00%	7.00%
Interest Charged	(3,670,753)	-	-	-	(52,624)
Application and Line Fees	(1,303,081)	5 -	3 -	-	(56,656)
Interest Paid by Equity	-	-	-	-	-
Loan Repayment	69,046,356	-	-	-	-
Interest and Fees	4,973,835	-	-	-	-
Principal	64,072,522	-	-	-	-
Loan Balance	-	-	-	(9,021,313)	(9,130,593)
% of Land Purchase Price.				65.6%	65.6%
Profit Share	-	-	-	-	-
Loan 1 Cash Flow	4,973,835	-	-	(9,021,313)	-
Interest Coverage Ratio	(0.29)	-	-	-	-
Debt Service Ratio	(0.01)	-	-	-	-

Refer to same line for all loans

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Preference 3 - On Cash Flow Including Financing Costs and Interest but Excluding Corporate Tax

		Formula
NPV =	1	NPV (Discount Rate *entered in Input sheet converted from annual to rest period rate*
		,
	2	*Time period 1 onwards for* Net Cash Flow (after Interest & Corporate Tax)
		plus
	3	*Time period 1 onwards for* Corporate Tax)
		plus
	4	*Time period 0 for* Net Cash Flow (after Interest & Corporate Tax)
		plus
	5	*Time period 0 for* Corporate Tax

Project Hurdle Rates

Project Discount Rate (target IRR)	1	18.00%	per annum Effective.

Note: The above Discount Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the NPV function.

PROJECT CASH FLOW	TOTAL	0 Sep-08	1 Oct-08	2 Nov-08
TOTAL COSTS	67,986,848	1,407,250	330,293	12,800,153
Net Cash Flow (before Interest & Corporate Tax)	19,570,688	(1,407,250)	(330,293)	(12,800,153)
Cumulative Cash Flow		(1,407,250)	(1,737,543)	(14,537,695)
Corporate Tax	491,844	5 -	3 426	393
Net Cash Flow (before Interest & after Corporate Tax)	19,078,845	(1,407,250)	(330,719)	(12,800,545)
Cumulative Cash Flow		(1,407,250)	(1,737,969)	(14,538,514)

Project Overdraft		-	-	(9,022,133)
% of Land Purchase Price.				65.62%
Total Equity to Debt Ratio	53.55%	-	-	60.96%
Total Debt Interest Coverage Ratio	(0.29)	-	-	-
Total Debt Service Ratio	0.58	-	-	-
Net Cash Flow (after Interest & Corporate Tax)	9,668,549	4 (1,407,250)	2 (322,193)	(12,792,690)
Cumulative Cash Flow**		(1,407,250)	(1,729,443)	(14,522,133)
Check Balance	-	-	-	-

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Preference 4 - On Cash Flow Including Financing Costs, Interest and Corporate Tax

		Formula
NPV =	1	NPV (Discount Rate *entered in Input sheet converted from annual to rest period rate*
		,
	2	*Time period 1 onwards for* Net Cash Flow (after Interest & Corporate Tax))
		plus
	4	*Time period 0 for* Net Cash Flow (after Interest & Corporate Tax)

Project Hurdle Rates			
Project Discount Rate (target IRR)	1	18.00%	per annum Effective

Note: The above Discount Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the NPV function.

PROJECT CASH FLOW	TOTAL	0 Sep-08	1 Oct-08	2 Nov-08
Loan 4 - Lender 3				
Drawdown	-	-	-	-
Loan Interest Rate (%/ann)		7.25%	7.25%	7.25%
Interest Charged	-	-	-	-
Application and Line Fees	-	-	-	-
Interest Paid by Equity	-	-	-	-
Loan Repayment	-	-	-	-
Interest and Fees	-	-	-	-
Principal	-	-	-	-
Loan Balance	-	-	-	-
% of Land Purchase Price.				
Loan 4 Cash Flow	-	-	-	-
Interest Coverage Ratio	-	-	-	-
Debt Service Ratio	-	-	-	-
Project Overdraft		-	-	(9,022,133)
% of Land Purchase Price.				65.62%
Total Equity to Debt Ratio	53.55%	-	-	60.96%
Total Debt Interest Coverage Ratio	(0.29)	-	-	-
Total Debt Service Ratio	0.58	-	-	-
Net Cash Flow (after Interest & Corporate Tax)	9,668,549	3 (1,407,250)	2 (322,193)	(12,792,690)
Cumulative Cash Flow**		(1,407,250)	(1,729,443)	(14,522,133)
Check Balance	-	-	-	-

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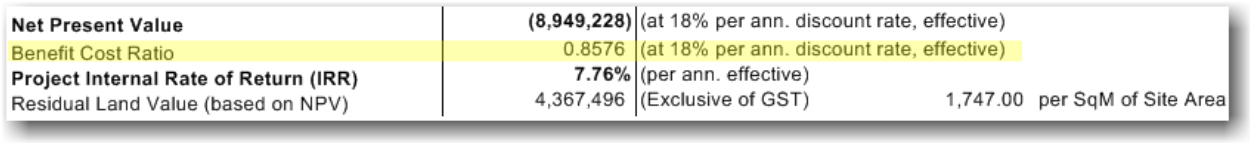
6. Benefit Cost Ratio

The Benefit Cost Ratio (BCR) attempts to identify the relationship between the costs of a project and their benefits (revenues) on a current value basis. It is essentially the ratio between the present value of a projects costs and the present value of the projects revenues.

A BCR below 1.0 infers that the project's costs outweigh the project's revenues, and therefore is deemed to be not feasible, whereas, a BCR above 1.0 infers that the project's costs are less than the project's revenues, and therefore is deemed to be feasible.



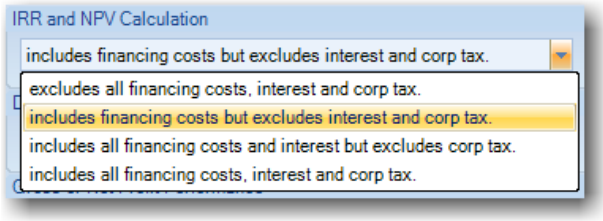
The Benefit Cost Ratio is closely related to the NPV, just a different way of representing it. Essentially:

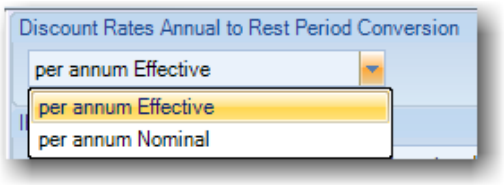
- When the NPV = 0, the BCR = 1.0
- When the NPV < 0, the BCR <1.0
- When the NPV > 0, the BCR >1.0

Calculation

Basically, the Benefit Cost Ratio is the NPV of Revenue divided by the NPV of Costs

Since the Benefit Cost Ratio is looking at the comparison between the present value of costs and revenues, the same Preferences are used when determining what cash flow data is used to calculate the output (i.e. whether Interest, Finance Costs and Corporate Tax are considered as 'Costs' in this calculation), and how the discount rate is converted from an annual rate to a rest period rate.

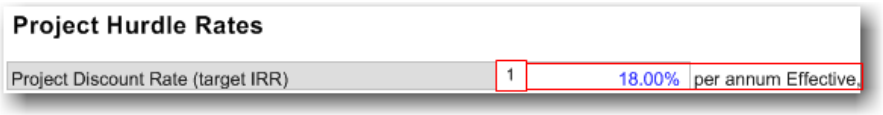




		Formula
BCR =	1	(NPV (Discount Rate *entered in Input sheet converted from annual to rest period rate* ,
	2	*Time period 1 onwards for* Total Net Revenue)
		plus
	3	*Time period 0 for* Total Net Revenue)
		divided by
	1	(NPV (Discount Rate *entered in Input sheet converted from annual to rest period rate* ,
	ⓘ	*Time period 1 onwards for* Costs)
		plus
	ⓘ	*Time period 0 for* Costs)

ⓘ Where 'Costs' =

- If Preference 1 (Excluding all Financing Costs, Interest and Corporate Tax):
  - 'Total Costs' (4) *minus* 'Financing Costs (exc Fees)' (5)
- If Preference 2 (Including Financing Costs but Excluding Interest and Corporate Tax):
  - 'Total Costs' (4) *minus* 'Application and Line Fees for Loans 1, 2, 3 and 4' (6)
- If Preference 3 (Including Financing Costs and Interest but Excluding Corporate Tax):
  - 'Total Costs' (4) *minus* 'Application and Line Fees for Loans 1, 2, 3 and 4' (6) *minus* 'Interest Charged/Received for Equity, Surplus Cash and Loans 1, 2, 3 and 4' (7)
- If Preference 4 (Preference 4 - On Cash Flow Including Financing Costs, Interest and Corporate Tax):
  - 'Total Costs' (4) *minus* 'Application and Line Fees for Loans 1, 2, 3 and 4' (6) *minus* 'Interest Charged/Received for Equity, Surplus Cash and Loans 1, 2, 3 and 4' (7) *plus* 'Corporate Tax' (8)



Project Hurdle Rates			
Project Discount Rate (target IRR)	1	18.00%	per annum Effective

Note: The above Discount Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the NPV function.

PROJECT CASH FLOW	TOTAL	0 Sep-08	1 Oct-08	2 Nov-08
PROJECT CASH FLOW				
REVENUE				
Gross Sales Revenue	98,751,864	-	-	-
Selling Costs	(2,205,897)	-	-	-
Gross Rental Income	4,579,018	-	-	-
Leasing Costs	(4,292,963)	-	-	-
Other Income	-	-	-	-
Interest Received*	-	-	-	-
GST Payments (Liabilities)	(9,274,486)	-	-	-
TOTAL NET REVENUE	87,557,537	3 -	2 -	-

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	PROJECT CASH FLOW	TOTAL	0 Sep-08	1 Oct-08	2 Nov-08
	COSTS				
	Land and Acquisition	13,887,500	1,388,750	-	12,498,750
	Professional Fees	5,799,006	-	323,692	323,692
	Construction Costs	50,245,650	-	-	-
	Statutory Fees and Contributions	2,904,236	-	-	-
	Miscellaneous Costs	-	-	-	-
	Miscellaneous Costs	-	-	-	-
	Miscellaneous Costs	264,000	-	-	-
	Project Contingency (Reserve)	1,435,838	-	7,851	7,851
	Land Holding Costs	442,434	-	-	-
	Pre-Sale Commissions	-	-	-	-
5	Financing Costs (exc Fees)	325,600	-	-	-
	GST Refunds (Input Credits)	(7,317,417)	-	(1,250)	(30,140)
4	**TOTAL COSTS**	67,986,848	1,388,750	330,293	12,800,153
	Net Cash Flow (before Interest & Corporate Tax)	19,570,688	(1,388,750)	(330,293)	(12,800,153)
	Cumulative Cash Flow		(1,388,750)	(1,719,043)	(14,519,195)
8	Corporate Tax	-	-	-	-
	Net Cash Flow (before Interest & after Corporate Tax)	19,570,688	(1,388,750)	(330,293)	(12,800,153)
	Cumulative Cash Flow		(1,388,750)	(1,719,043)	(14,519,195)
	FINANCING				
	Equity				
	Manual Adjustments (Inject + / Repay -)		0	0	0
	Injections	69,945,602	5,500,000	-	-
7	Interest Charged	-	-	-	-
	Equity Repayment	81,593,434	-	-	-
	Less Profit Share	-	-	-	-
	Equity Balance	11,647,832	(5,500,000)	(5,500,000)	(5,500,000)
	Equity Cash Flow	11,647,832	(5,500,000)	-	-
	Project Cash Account				
	Surplus Cash Injection	96,106,432	5,500,000	-	-
	Cash Reserve Drawdown	(96,312,972)	(1,388,750)	(330,293)	(3,797,417)
7	Interest on Surplus Cash	206,540	-	8,565	7,895
	Surplus Cash Balance		4,111,250	3,789,522	-
	Loan 1 - Lender 1				
	Manual Adjustments (Drawdown - / Repay +)	-	0	0	0
	Drawdown	(64,072,444)	-	-	(9,002,735)
	Loan Interest Rate (%/ann)		7.00%	7.00%	7.00%
7	Interest Charged	(3,583,433)	-	-	-
6	Application and Line Fees	-	-	-	-
	Interest Paid by Equity	-	-	-	-
	Loan Repayment	67,655,877	-	-	-
	Interest and Fees	3,583,433	-	-	-
	Principal	64,072,444	-	-	-
	Loan Balance	-	-	-	(9,002,735)
	% of Land Purchase Price.				65.5%
	Profit Share	-	-	-	-
	Loan 1 Cash Flow	3,583,433	-	-	(9,002,735)
	Interest Coverage Ratio	(0.40)	-	-	-
	Debt Service Ratio	(0.01)	-	-	-

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7. Project Internal Rate of Return

The Internal Rate of Return (IRR) on an investment or project is the "annualised return rate" or "rate of return" that makes the net present value of all cash flows (both positive and negative) from a particular investment equal to zero.

In more specific terms, the IRR of an investment is the discount rate at which the net present value of costs (negative cash flows) of the investment equals the net present value of the benefits (positive cash flows) of the investment.

Net Present Value	**(8,949,228)**	(at 18% per ann. discount rate, effective)		
Benefit Cost Ratio	0.8576	(at 18% per ann. discount rate, effective)		
Project Internal Rate of Return (IRR)	**7.76%**	(per ann. effective)		
Residual Land Value (based on NPV)	4,367,496	(Exclusive of GST)	1,747.00	per SqM of Site Area

Calculation

The standard Excel function for IRR is used in Estate Master:

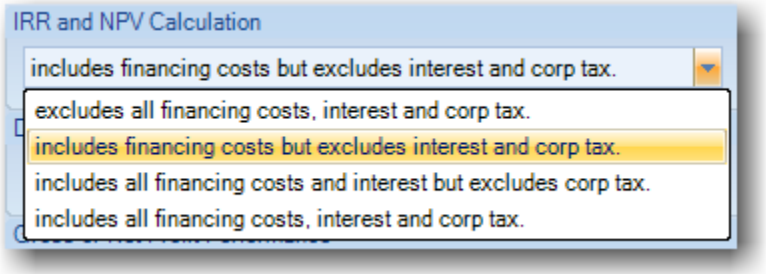
IRR (values, guess)

Where:
Values = is an array or a reference to cells that contain numbers for which you want to calculate the internal rate of return.
Guess = a number that you guess is close to the result of IRR.

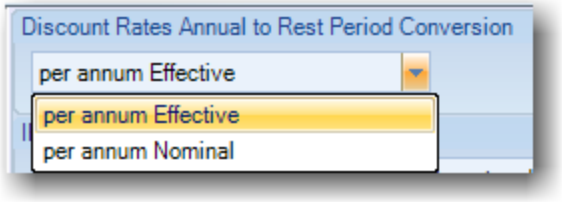
The cash flow data that is used to calculate the IRR is also summarised in the 'Project IRR & NPV' section of the Cash Flow worksheet.

PROJECT IRR & NPV					
Cash Flow that excludes all financing costs, interest and corp tax.		(1,388,750)	(330,293)	(12,800,153)	959,847
Static Discount Rate (per ann. effective)	18.00%				
PV for each Month	(1,838,207)	(1,388,750)	(325,768)	(12,451,877)	920,941
NPV of Future Cash Flows		(1,838,207)	(455,699)	(127,148)	12,849,012
Variable Discount Rate (per ann. effective)	18.00%	18.00%	18.00%	18.00%	18.00%
NPV (using weighted avg discount rate)	(1,838,207)				

There are 4 different methods for calculating the IRR on the Summary Report, set via the Preferences. They relate to the specific cash flow that is used to calculate the IRR, most notably if it includes financing costs, interest and corporate tax.



In addition to these Preferences, the IRR is also impacted by the Preference to convert the Discount Rate on either an Effective or Nominal basis. This is required as the initial IRR that is calculated using the Excel IRR function and the cash flow data is not necessarily always an annual rate – for example, if the user is running the model with monthly rest periods, then the initial IRR result would be a rate per month. Since IRR needs to be expressed as an annual rate, the answer provided by the Excel IRR function needs to be converted.

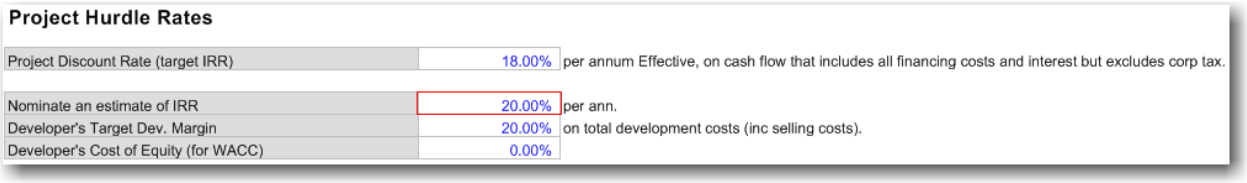


	Formula	Example
'per annum Nominal'	D x T	1.5% per month x 12 = 18% p.a
'per annum Effective'	$[(D + 1)^T]-1$	$[(1.5\%$ per month $+ 1)^{12}]-1 = 19.56\%$ p.a

Where:
D = is the rest period (e.g monthly) IRR
T = The number of rest periods per annum (i.e Monthly = 12, Quarterly = 4, etc)

The Guess Rate is critical in the IRR function, as it uses an iterative technique for calculating it. Starting with the guess, the IRR function cycles through the calculation until the result is accurate within 0.00001 percent. If the IRR function can't find a result that works after 20 tries, the #NUM! error value is returned.

The Guess Rate is set in the 'Hurdle Rates' section of the Input sheet.



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Preference 1 - On Cash Flow Excluding all Financing Costs, Interest and Corporate Tax

		Formula
IRR =	1	IRR (*Time period 0 onwards for* Net Cash Flow before Interest & Corporate Tax *plus*
	2	*Time period 0 onwards for* Financing Costs ,
	3	Nominate an estimate of IRR *entered in Input sheet converted from annual to rest period rate*)
		Convert answer to Annual Rate based on Nominal or Effective Preference

PROJECT CASH FLOW	TOTAL	GST	0 Sep-08	1 Oct-08	2 Nov-08
PROJECT CASH FLOW					
REVENUE					
Gross Sales Revenue	98,751,864		-	-	-
Selling Costs	(2,205,897)		-	-	-
Gross Rental Income	4,579,018		-	-	-
Leasing Costs	(4,292,963)		-	-	-
Other Income	-		-	-	-
Interest Received*	-		-	-	-
GST Payments (Liabilities)	(9,274,486)		-	-	-
TOTAL NET REVENUE	87,557,537		-	-	-
COSTS					
Land and Acquisition	13,887,500		1,388,750	-	12,498,750
Professional Fees	5,799,006		-	323,692	323,692
Construction Costs	50,245,650		-	-	-
Statutory Fees and Contributions	2,904,236		-	-	-
Miscellaneous Costs	-		-	-	-
Miscellaneous Costs	-		-	-	-
Miscellaneous Costs	264,000		-	-	-
Project Contingency (Reserve)	1,435,838		-	7,851	7,851
Land Holding Costs	442,434		-	-	-
Pre-Sale Commissions	-		-	-	-
Financing Costs (exc Fees)	296,000		2 18,500	-	-
GST Refunds (Input Credits)	(7,287,817)		-	(1,250)	(30,140)
TOTAL COSTS	67,986,848		1,407,250	330,293	12,800,153
Net Cash Flow (before Interest & Corporate Tax)	19,570,688		1 (1,407,250)	(330,293)	(12,800,153)
Cumulative Cash Flow			(1,407,250)	(1,737,543)	(14,537,695)
Corporate Tax	-		-	-	-
Net Cash Flow (before Interest & after Corporate Tax)	19,570,688		(1,407,250)	(330,293)	(12,800,153)
Cumulative Cash Flow			(1,407,250)	(1,737,543)	(14,537,695)

Project Hurdle Rates		
Project Discount Rate (target IRR)	18.00%	per annum Effective,
Nominate an estimate of IRR 3	20.00%	per ann.
Developer's Target Dev. Margin	20.00%	on total development
Developer's Cost of Equity (for WACC)	0.00%	

Note: The above Guess Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the IRR function.

EstateMaster

Preference 2 - On Cash Flow Including Financing Costs but Excluding Interest and Corporate Tax

		Formula
IRR =	1	IRR (*Time period 0 onwards for* Net Cash Flow before Interest & Corporate Tax *plus*
	2	*Time period 0 onwards for* Application and Line Fees for Loans 1, 2, 3 and 4 ,
	3	Nominate an estimate of IRR *entered in Input sheet converted from annual to rest period rate*)
		Convert answer to Annual Rate based on Nominal or Effective Preference

PROJECT CASH FLOW	TOTAL	0 Sep-08	1 Oct-08	2 Nov-08	3 Dec-08
Net Cash Flow (before Interest & Corporate Tax)	19,570,688	1 (1,407,250)	(330,293)	(12,800,153)	959,847
Cumulative Cash Flow		(1,407,250)	(1,737,543)	(14,537,695)	(13,577,848)
Corporate Tax	-	-	-	-	-
Net Cash Flow (before Interest & after Corporate Tax)	19,570,688	(1,407,250)	(330,293)	(12,800,153)	959,847
Cumulative Cash Flow		(1,407,250)	(1,737,543)	(14,537,695)	(13,577,848)
FINANCING					
Equity					
Manual Adjustments (Inject + / Repay -)		0	0	0	0
Injections	71,428,780	5,500,000	-	-	-
Interest Charged	-	-	-	-	-
Equity Repayment	81,593,434	-	-	-	-
Less Profit Share	-	-	-	-	-
Equity Balance	10,164,654	(5,500,000)	(5,500,000)	(5,500,000)	(5,500,000)
Equity Cash Flow	10,164,654	(5,500,000)	-	-	-
Project Cash Account					
Surplus Cash Injection	96,106,432	5,500,000	-	-	959,847
Cash Reserve Drawdown	(96,312,895)	(1,407,250)	(330,293)	(3,778,840)	-
Interest on Surplus Cash	206,463	-	8,527	7,856	-
Surplus Cash Balance		4,092,750	3,770,984	-	959,847
Loan 1 - Lender 1					
Manual Adjustments (Drawdown - / Repay +)	-	0	0	0	0
Drawdown	(64,072,522)	-	-	(9,021,313)	-
Loan Interest Rate (%/ann)		7.00%	7.00%	7.00%	7.00%
Interest Charged	(3,670,753)	-	-	-	(52,624)
Application and Line Fees	(1,303,081)	2 -	-	-	(56,656)
Interest Paid by Equity	-	-	-	-	-
Loan Repayment	69,046,356	-	-	-	-
Interest and Fees	4,973,835	-	-	-	-
Principal	64,072,522	-	-	-	-
Loan Balance	-	-	-	(9,021,313)	(9,130,593)
% of Land Purchase Price.				65.6%	65.6%
Profit Share	-	-	-	-	-
Loan 1 Cash Flow	4,973,835	-	-	(9,021,313)	-
Interest Coverage Ratio	(0.29)	-	-	-	-
Debt Service Ratio	(0.01)	-	-	-	-

Refer to same line for all loans

Project Hurdle Rates		
Project Discount Rate (target IRR)	18.00%	per annum Effective,
Nominate an estimate of IRR	3 20.00%	per ann.
Developer's Target Dev. Margin	20.00%	on total development
Developer's Cost of Equity (for WACC)	0.00%	

Note: The above Guess Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the IRR function.

EstateMaster

Preference 3 - On Cash Flow Including Financing Costs and Interest but Excluding Corporate Tax

		Formula
IRR =	1	IRR (*Time period 0 onwards for* Net Cash Flow (after Interest & Corporate Tax) *plus*
	2	*Time period 0 onwards for* Corporate Tax ,
	3	Nominate an estimate of IRR *entered in Input sheet converted from annual to rest period rate*)
		Convert answer to Annual Rate based on Nominal or Effective Preference

PROJECT CASH FLOW	TOTAL		0 Sep-08	1 Oct-08	2 Nov-08
TOTAL COSTS	67,986,848		1,407,250	330,293	12,800,153
Net Cash Flow (before Interest & Corporate Tax)	19,570,688		(1,407,250)	(330,293)	(12,800,153)
Cumulative Cash Flow			(1,407,250)	(1,737,543)	(14,537,695)
Corporate Tax	491,844	2	-	426	393
Net Cash Flow (before Interest & after Corporate Tax)	19,078,845		(1,407,250)	(330,719)	(12,800,545)
Cumulative Cash Flow			(1,407,250)	(1,737,969)	(14,538,514)
Project Overdraft			-	-	(9,022,133)
% of Land Purchase Price.					65.62%
Total Equity to Debt Ratio	53.55%		-	-	60.96%
Total Debt Interest Coverage Ratio	(0.29)		-	-	-
Total Debt Service Ratio	0.58		-	-	-
Net Cash Flow (after Interest & Corporate Tax)	9,668,549	1	(1,407,250)	(322,193)	(12,792,690)
Cumulative Cash Flow**			(1,407,250)	(1,729,443)	(14,522,133)
Check Balance	-		-	-	-

Project Hurdle Rates

Project Discount Rate (target IRR)		18.00%	per annum Effective,
Nominate an estimate of IRR	3	20.00%	per ann.
Developer's Target Dev. Margin		20.00%	on total development
Developer's Cost of Equity (for WACC)		0.00%	

Note: The above Guess Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the IRR function.

EstateMaster

Preference 4 - On Cash Flow Including Financing Costs, Interest and Corporate Tax

		Formula
IRR =	1	IRR (*Time period 0 onwards for* Net Cash Flow (after Interest & Corporate Tax)
		,
	2	Nominate an estimate of IRR *entered in Input sheet converted from annual to rest period rate*)
		Convert answer to Annual Rate based on Nominal or Effective Preference

PROJECT CASH FLOW	TOTAL		0 Sep-08	1 Oct-08	2 Nov-08
Loan 4 - Lender 3					
Drawdown	-		-	-	-
Loan Interest Rate (%/ann)			7.25%	7.25%	7.25%
Interest Charged	-		-	-	-
Application and Line Fees	-		-	-	-
Interest Paid by Equity	-		-	-	-
Loan Repayment	-		-	-	-
Interest and Fees	-		-	-	-
Principal	-		-	-	-
Loan Balance	-		-	-	-
% of Land Purchase Price.					
Loan 4 Cash Flow	-		-	-	-
Interest Coverage Ratio	-		-	-	-
Debt Service Ratio	-		-	-	-
Project Overdraft			-	-	(9,022,133)
% of Land Purchase Price.					65.62%
Total Equity to Debt Ratio	53.55%		-	-	60.96%
Total Debt Interest Coverage Ratio	(0.29)		-	-	-
Total Debt Service Ratio	0.58		-	-	-
Net Cash Flow (after Interest & Corporate Tax)	9,668,549	1	(1,407,250)	(322,193)	(12,792,690)
Cumulative Cash Flow**			(1,407,250)	(1,729,443)	(14,522,133)
Check Balance	-		-	-	-

Project Hurdle Rates

Project Discount Rate (target IRR)		18.00%	per annum Effective,
Nominate an estimate of IRR	2	20.00%	per ann.
Developer's Target Dev. Margin		20.00%	on total development
Developer's Cost of Equity (for WACC)		0.00%	

Note: The above Guess Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the IRR function.

EstateMaster

8. Residual Land Value (Based on % NPV)

The Residual Land Value based on the NPV is the maximum price for the land that the developer would pay to make the calculated NPV equal zero or the calculated IRR equal the Discount Rate. The Discount Rate is essentially the developer's required IRR for the project.

Unlike the Development Margin, the NPV and IRR takes into account the dimension of time in its calculation and is used to differentiate projects of different cash flow exposures. It is more effective for longer term projects of more than 2 years, as it can be quite sensitive to small movements in time for short term projects. By adopting a suitable Discount Rate (Target IRR), the cash inflows and outflows are discounted to determine their present value and then added together to form a Net Present Value for ease of comparison between other projects of dissimilar timings.

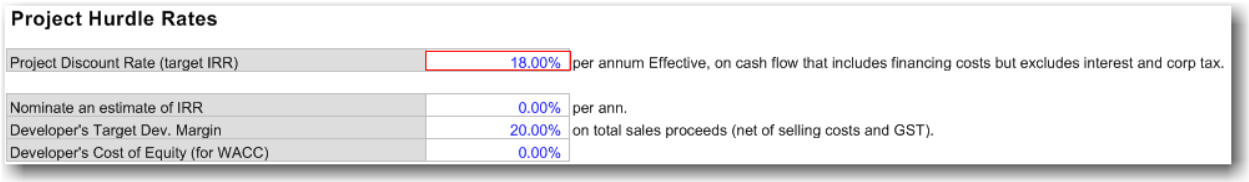
From the example below you can see that the IRR for the proposed development project is only achieving 15.51% based on an assumed Land Purchase Price of 13,750,000. In order to achieve the Target IRR (Discount Rate) of 18% the developer would need to purchase the land for a maximum residual land value of 10,377,909.

COSTS			
Land Purchase Cost	13,750,000		
Land Transaction Costs	137,500		
Construction Costs (inc. Contingency)	50,245,650		
Professional Fees	5,799,006		
Statutory Fees and Contributions	2,904,236		
Miscellaneous Costs	264,000		
Project Contingency (Project Reserve)	1,435,838		
Land Holding Costs	442,434		
Pre-Sale Commissions	-		
Finance Charges (inc. Fees)	325,600		
Interest Expense	8,129,397		
TOTAL COSTS (before GST reclaimed)	83,433,662		
Less GST reclaimed	(7,317,417)		
TOTAL COSTS (after GST reclaimed)	**76,116,245**		
PERFORMANCE INDICATORS			
[5] **Net Present Value**	**(2,094,260)**	(at 18% per ann. discount rate, effective)	
[6] Benefit Cost Ratio	0.9626	(at 18% per ann. discount rate, effective)	
[7] **Project Internal Rate of Return (IRR)**	**15.51%**	(per ann. effective)	
[8] Residual Land Value (based on NPV)	10,377,909	(Exclusive of GST)	4,151.16

Calculation

There is no specific formula that calculates the Residual Land Value. It is a result that is calculated through undertaking a 'goal seek' - the land price is manipulated up and down until the NPV equals zero and the IRR matches the developer's desired 'Target IRR' (i.e Discount Rate).

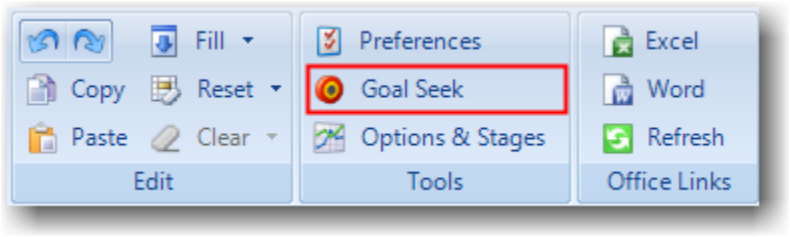
The Discount Rate is set on the Input sheet under 'Hurdle Rates'



Project Hurdle Rates

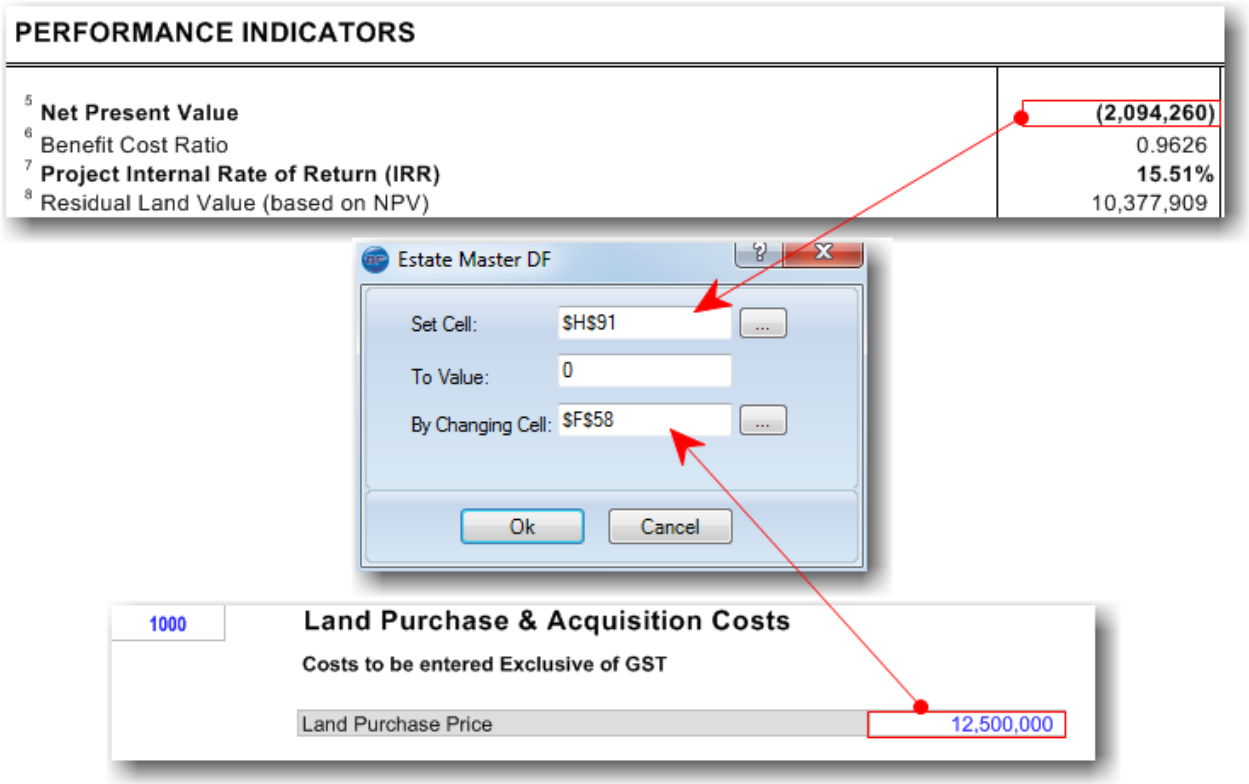
Project Discount Rate (target IRR)	18.00%	per annum Effective, on cash flow that includes financing costs but excludes interest and corp tax.
Nominate an estimate of IRR	0.00%	per ann.
Developer's Target Dev. Margin	20.00%	on total sales proceeds (net of selling costs and GST).
Developer's Cost of Equity (for WACC)	0.00%	

Even though the Residual Land Value calculation is not a formula, it can still be easily recreated and demonstrated using Estate Masters Goal Seek function.



Once you have opened the Goal Seek function, set the following parameters:

- Set Cell: The NPV output on the Summary report
- To Value: Zero
- By Changing Cell: The Land Purchase Price input on the Input sheet



Once you press OK on the Goal Seek, it will then calculate an answer in the Land Purchase Price input on the Input sheet.

EstateMaster

9. Equity IRR

The Equity IRR is different to the Project IRR, as it only looks at the rate of return on the equity contributions and repayments.

PERFORMANCE INDICATORS	
Equity IRR	39.14%
Equity Contribution	69,945,602
Peak Debt Exposure	68,299,049
Equity to Debt Ratio	52.84%

Calculation

Similar to the Project IRR, the following pertains to the Equity IRR:

- The standard Excel function for IRR is used in Estate Master for the Equity IRR calculation.
- The Equity IRR is also impacted by the Preference to convert the Discount Rate on either an Effective or Nominal Basis. The initial Equity IRR that is calculated using the Excel IRR function and the cash flow data is not necessarily always an annual rate, and therefore needs to be converted on an Effective or Nominal basis.
- A Guess Rate is required.

		Formula
Equity IRR =	1	IRR (*Time period 0 onwards for* Equity Cash Flow
		,
	2	Nominate an estimate of IRR *entered in Input sheet*)
		Convert answer to Annual Rate based on Nominal or Effective Preference

PROJECT CASH FLOW	TOTAL	0 Sep-08	1 Oct-08	2 Nov-08	3 Dec-08	4 Jan-09
Equity						
Manual Adjustments (Inject + / Repay -)		0	0	0	0	0
Injections	71,667,817	5,500,000	-	-	-	-
Interest Charged	-	-	-	-	-	-
Equity Repayment	81,336,366	-	-	-	-	-
Less Profit Share	-	-	-	-	-	-
Equity Balance	9,668,549	(5,500,000)	(5,500,000)	(5,500,000)	(5,500,000)	(5,500,000)
Equity Cash Flow	9,668,549	1 (5,500,000)	-	-	-	-
Project Cash Account						
Surplus Cash Injection	95,684,828	5,500,000	-	-	959,847	-
Cash Reserve Drawdown	(95,890,411)	(1,407,250)	(330,719)	(3,778,413)	-	(347,035)
Interest on Surplus Cash	205,583	-	8,527	7,855	-	2,000
Surplus Cash Balance		4,092,750	3,770,557	-	959,847	614,812

Project Hurdle Rates			
Project Discount Rate (target IRR)		18.00%	per annum Effective,
Nominate an estimate of IRR	2	20.00%	per ann.
Developer's Target Dev. Margin		20.00%	on total development
Developer's Cost of Equity (for WACC)		0.00%	

Note: The above Guess Rate needs to be converted from an annual rate, to a rate equivalent to the rest periods being used in the model, before it is used in the Equity IRR function.

EstateMaster

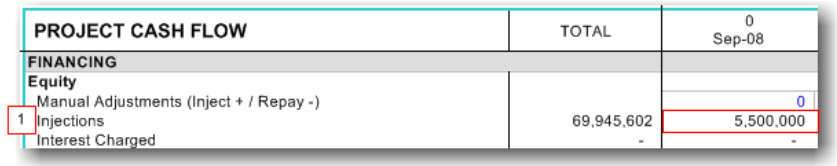
10. Equity Contribution

This is the total amount of Equity being contributed into the Project

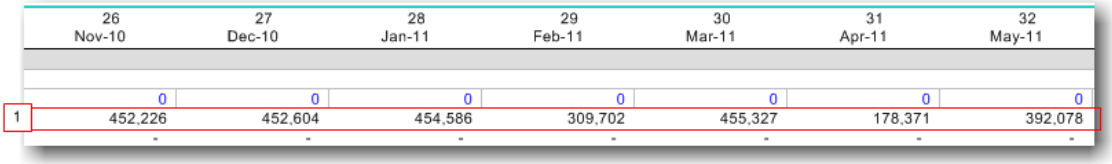
PERFORMANCE INDICATORS	
Equity IRR	39.14%
Equity Contribution	69,945,602
Peak Debt Exposure	68,299,049
Equity to Debt Ratio	52.84%

Calculation

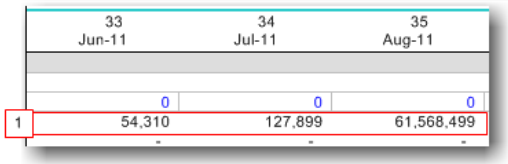
	Formula	Example
Equity Contribution =	*Sum of all positive Equity* Injections *on CashFlow sheet*	5,500,000
		+ 452,226
		+ 452,604
		+ 454,586
		+ 309,702
1		+ 455,327
		+ 178,371
		+ 392,078
		+ 54,310
		+ 127,899
		+ 61,568,499
		69,945,602



PROJECT CASH FLOW	TOTAL	0 Sep-08
FINANCING		
Equity		
Manual Adjustments (Inject + / Repay -)		0
1 Injections	69,945,602	5,500,000
Interest Charged	-	-



	26 Nov-10	27 Dec-10	28 Jan-11	29 Feb-11	30 Mar-11	31 Apr-11	32 May-11
	0	0	0	0	0	0	0
1	452,226	452,604	454,586	309,702	455,327	178,371	392,078
	-	-	-	-	-	-	-



	33 Jun-11	34 Jul-11	35 Aug-11
	0	0	0
1	54,310	127,899	61,568,499
	-	-	-

EstateMaster

11. Peak Debt Exposure

This is where the project overdraft for all debt loans reaches its highest point.

PERFORMANCE INDICATORS	
Equity IRR	39.14%
Equity Contribution	69,945,602
Peak Debt Exposure	68,299,049
Equity to Debt Ratio	52.84%

Calculation

Peak Debt Exposure =

Formula	Example
Largest Negative Project Overdraft *on CashFlow sheet, converted to a positive number*	MIN ((67,833,974) , (67,890,551) , (68,187,893) , (68,187,893) , (68,299,049)) * -1
	68,299,049

1

	PROJECT CASH FLOW	25 Oct-10	26 Nov-10	27 Dec-10	28 Jan-11	29 Feb-11
1	Project Overdraft	(67,833,974)	(67,890,551)	(68,187,893)	(68,187,893)	(68,299,049)
	% of Land Purchase Price.	959.32%	959.73%	961.89%	961.89%	962.70%

EstateMaster

12. Equity to Debt Ratio

This is the proportion of equity being contributed to the project compared to debt.

PERFORMANCE INDICATORS

Equity IRR	39.14%
Equity Contribution	69,945,602
Peak Debt Exposure	68,299,049
Equity to Debt Ratio	52.84%

Calculation

		Formula	Example
Equity to Debt Ratio =	1	Equity 'Funds Invested'	69,945,602
		divided by	/
	2	Total Debt 'Funds Invested'	132,371,494
			52.84%

PERFORMANCE INDICATORS

Equity IRR	39.14%	(per ann. effective)
Equity Contribution	69,945,602	
Peak Debt Exposure	68,299,049	
Equity to Debt Ratio	52.84%	

Footnotes:

RETURNS ON FUNDS INVESTED		Equity	Loan 1	Loan 2			Total Debt
			Lender 1	Lender 2			
[1] Funds Invested (Cash Outlay)	1	69,945,602	64,072,444	68,299,049		2	132,371,494
% of Total Funds Invested		34.57%	31.67%	33.76%			65.43%

EstateMaster

13. Weighted Average Cost of Capital (WACC)

The WACC is a calculation of a firm's cost of capital in which each category of capital (equity and debt) is proportionately weighted.

PERFORMANCE INDICATORS	
[9] Weighted Average Cost of Capital (WACC)	16.12%
[10] Breakeven Date for Cumulative Cash Flow	Aug-2011
[11] Yield on Cost	8.71%
[12] Rent Cover	1 Yrs, 3 Mths
[13] Profit Erosion	0 Yrs, 0 Mths

Calculation

		Formula	Example
WACC =	1	(Equity 'Funds Invested'	(70,924,966
		divided by	/
	2	(Total Debt 'Funds Invested'	(132,668,186
		plus	+
	1	Equity 'Funds Invested')	70,924,966)
		multiplied by	*
	3	Developer's Cost of Equity *on Input Sheet*)	35%)
		plus	+
	2	(Total Debt 'Funds Invested'	(132,668,186
		divided by	/
	2	(Total Debt 'Funds Invested'	(132,668,186
		plus	+
	1	Equity 'Funds Invested')	70,924,966)
		multiplied by	*
	4	Total Debt 'Weighted Average Interest Rate')	7.53%)
		multiplied by	*
	5	*(*1 – Weighted Average Tax Rate *on Financials Sheet)*	(1 - 20%)
			16.12%

RETURNS ON FUNDS INVESTED	Equity	Loan 1	Loan 2	Total Debt
		Lender 1	Lender 2	
[1] Funds Invested (Cash Outlay)	1 70,924,966	64,076,396	68,591,790	2 132,668,186
% of Total Funds Invested	34.84%	31.47%	33.69%	65.16%
[2] Peak Exposure	70,924,966	67,267,985	68,591,790	68,591,790
Date of Peak Exposure	Aug-11	Sep-10	Apr-11	Apr-11
Month of Peak Exposure	Month 35	Month 24	Month 31	Month 31
Weighted Average Interest Rate	N.A.	7.00%	8.00%	4 7.53%
Interest Charged	-	3,583,985	4,560,136	8,144,122

EstateMaster

Project Hurdle Rates

Project Discount Rate (target IRR)	18.00%	per annum Effective, on cash flow that includes financing costs but excludes interest and corp tax.
Nominate an estimate of IRR	0.00%	per ann.
Developer's Target Dev. Margin	20.00%	on total sales proceeds (net of selling costs and GST).
Developer's Cost of Equity (for WACC) 3	35.00%	

CORPORATE TAX STATEMENT

Profit Before Tax & Depreciation	11,305,548	-	8,565	7,891
Depreciation	-	-	-	-
Profit After Depreciation and Before Tax	11,305,548	-	8,565	7,891
Tax Rate 5	20.00%	20.00%	20.00%	20.00%
Tax Liability @ Weighted Avg Tax Rate of 20.00%)	2,261,110	-	1,713	1,578
Profit After Tax	9,044,439	-	6,852	6,313

EstateMaster

14. Breakeven Date for Cumulative Cash Flow

This is where the Cumulative Cash Flow After Interest goes from being negative to zero/positive.

If there are multiple occasions where this occurs in the project life, then the last time it occurs is reported.

If the project does not make a profit (and hence does not break even at any point), this result will show "N.A"

PERFORMANCE INDICATORS

9 Weighted Average Cost of Capital (WACC)	16.12%
10 Breakeven Date for Cumulative Cash Flow	Aug-2011
11 Yield on Cost	8.71%
12 Rent Cover	1 Yrs, 3 Mths
13 Profit Erosion	0 Yrs, 0 Mths

Calculation

Breakeven Date for Cumulative Cash Flow = 1

Formula	Example	
The last period where Cumulative Cash Flow After Interest *on CashFlow sheet goes from negative to zero or positive*	May-2011	(76,721,570)
	Jun-2011	(76,972,339)
	Jul-2011	(70,467,688)
	Aug-2011	9,074,862
		Aug-2011

PROJECT CASH FLOW	TOTAL	32 May-11	33 Jun-11	34 Jul-11	35 Aug-11	36 Sep-11
Project Overdraft		(68,591,790)	(68,591,790)	(68,591,790)	-	-
% of Land Purchase Price.		964.86%	964.86%	964.86%		
Total Equity to Debt Ratio	53.46%	6.35%	6.47%	6.66%	53.46%	-
Total Debt Interest Coverage Ratio	(0.40)	-	-	-	-	-
Total Debt Service Ratio	0.59	-	-	-	1.18	-
Net Cash Flow (after Interest & Corporate Tax)	9,367,958	(164,227)	(250,769)	6,504,651	79,542,549	293,096
Cumulative Cash Flow**	1	(76,721,570)	(76,972,339)	(70,467,688)	9,074,862	9,367,958

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15. Yield on Costs

Yield on cost is an investment's annual dividend (i.e rental income) divided by the original cost of the investment.

If the project does not have any rental income, this result will show "N.A"

Calculation

		Formula	Example
Yield on Costs =	1	Current Net Annual Rent *on Tenants sheet*	7,396,700
		Divided by	/
	2	(Total Costs Before Tax Reclaimed	(83,448,387
		minus	-
	3	Selling Costs	(2,189,944)
		minus	-
	4	Purchaser's Costs)	0)
			8.64%

Tenancy Schedule

12000 **Rental Income & Capitalised Sales**

Code	Stage	Description		Current Net Annual Rent
12001	-	.		-
12002	-	.		-
12003	-	Commercial 1		2,040,000
12004	-	Commercial 2		1,360,000
12005	-	Commercial 3		1,020,000
12006	-	Commercial 4		1,020,000
12007	-	Commercial 5		680,000
12008	-	Commercial 6		680,000
12009	-			-
12010	-	Commercial 1 car spaces		198,900
12011	-	Commercial 2 car spaces		132,600
12012	-	Commercial 3 car spaces		99,450
12013	-	Commercial 4 car spaces		99,450
12014	-	Commercial 5 car spaces		66,300
12050	-	.		-
		TOTAL	1	7,396,700

3	Less Selling Costs				(2,189,944)
4	Less Purchasers Costs				-
	NET SALE PROCEEDS				95,733,170
		Average Yield	SqM	AUD/SqM/annum	AUD
	Rental Income	8.0%	17,204.0	429.9	4,579,018
	Commercial	8.0%	17,000.0	400.0	4,196,136
	Parking	8.0%	204.0	2,925.0	382,883
	Less Outgoings & Vacancies				-
	Less Letting Fees				(1,298,424)
	Less Incentives (Rent Free and Fit-out Costs)				(2,994,539)
	Less Other Leasing Costs				-
	NET RENTAL INCOME				286,056
	Interest Received				201,272
	TOTAL REVENUE (before GST paid)				96,220,498
	Less GST paid on all Revenue				(9,199,145)
	TOTAL REVENUE (after GST paid)				**87,021,353**
	COSTS				
	Land Purchase Cost				13,750,000
	Land Transaction Costs				137,500
	Construction Costs (inc. Contingency)				50,245,650
	Other Construction Costs				47,853,000
	Contingency				2,392,650
	Professional Fees				5,799,006
	Statutory Fees and Contributions				2,904,236
	Miscellaneous Costs				264,000
	Project Contingency (Project Reserve)				1,435,838
	Land Holding Costs				442,434
	Finance Charges (inc. Fees)				325,600
	Interest Expense				8,144,122
2	TOTAL COSTS (before GST reclaimed)				83,448,387
	Less GST reclaimed				(7,315,967)
	TOTAL COSTS (after GST reclaimed)				**78,245,503**

PERFORMANCE INDICATORS

9	Weighted Average Cost of Capital (WACC)	16.12%
10	Breakeven Date for Cumulative Cash Flow	Aug-2011
11	Yield on Cost	8.64%
12	Rent Cover	1 Yrs, 2 Mths

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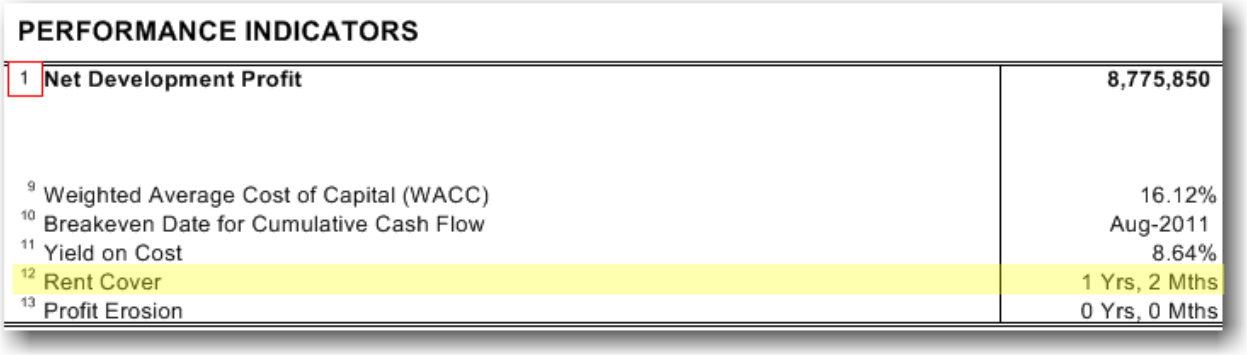
16. Rent Cover

Rent Cover is the total Net Development Profit divided by the Current Net Annual Rental expressed as a number of years/months.

If the project does not have any rental income, this result will show "N.A"

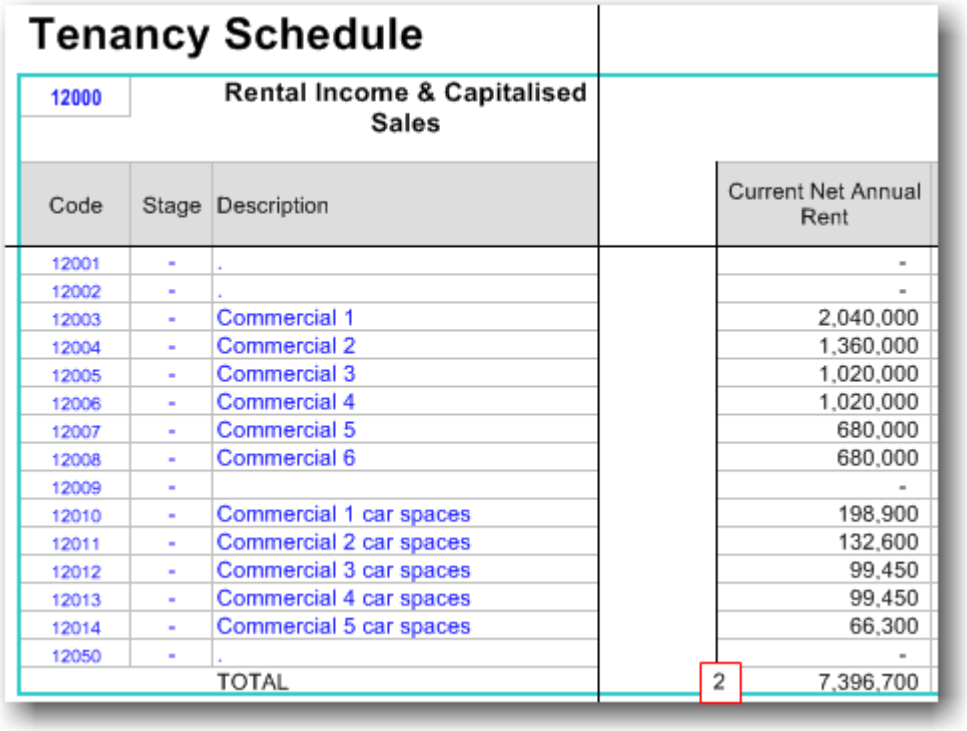
Calculation

		Formula	Example
Rent Cover =	1	Net Development Profit	8,775,850
		Divided by	/
	2	Current Net Annual Rent *on Tenants sheet*	7,396,700
			1.18
		This result is then formatted to express a time period of months/years (rounded down to the nearest month).	1 Years and 2 Months



PERFORMANCE INDICATORS

1	**Net Development Profit**	**8,775,850**
9	Weighted Average Cost of Capital (WACC)	16.12%
10	Breakeven Date for Cumulative Cash Flow	Aug-2011
11	Yield on Cost	8.64%
12	Rent Cover	1 Yrs, 2 Mths
13	Profit Erosion	0 Yrs, 0 Mths



Tenancy Schedule

12000 **Rental Income & Capitalised Sales**

Code	Stage	Description		Current Net Annual Rent
12001	-	.		-
12002	-	.		-
12003	-	Commercial 1		2,040,000
12004	-	Commercial 2		1,360,000
12005	-	Commercial 3		1,020,000
12006	-	Commercial 4		1,020,000
12007	-	Commercial 5		680,000
12008	-	Commercial 6		680,000
12009	-			-
12010	-	Commercial 1 car spaces		198,900
12011	-	Commercial 2 car spaces		132,600
12012	-	Commercial 3 car spaces		99,450
12013	-	Commercial 4 car spaces		99,450
12014	-	Commercial 5 car spaces		66,300
12050	-	.		-
		TOTAL	2	7,396,700

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17. Profit Erosion

Profit Erosion is the period of time post practical completion that the project can remain unsold (but leased out) until finance and land holding costs erodes the profit for the development to zero.

If the project does not have any capitalised rental income, this result will show "N.A"

Calculation

		Formula
Rent Cover =	1	Net Development Profit *multiplied by -1*
		Divided by
		From the month the first Capitalised Sales is due to occur onwards, Sum of the following on the Cash Flow sheet……
		(Maximum of the
	2	*Previous Month's* Gross Rental Income
		plus
	3	*Previous Month's* Leasing Costs
		plus
	4	*Previous Month's* Interest Received
		or
	5	*Current Month's* Gross Rental Income
		plus
	6	*Current Month's* Leasing Costs
		plus
	7	*Current Month's* Interest Received)
		minus
	8	*Current Month's* Land Holding Costs
		plus
	9	*Current Month's* 'Application and Line Fees for Loans 1, 2, 3 and 4'
		plus
	10	*Current Month's* 'Interest Charged for Equity and Loans 1, 2, 3 and 4'

This result is then formatted to express a time period of months/years (rounded down to the nearest month).

PERFORMANCE INDICATORS

1	Net Development Profit	11,647,832
3	Development Margin (or Profit/Risk Margin)	14.82%

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Assume first Capitalised Sales occurs here

PROJECT CASH FLOW	TOTAL	32 May-11	33 Jun-11	34 Jul-11
REVENUE				
Gross Sales Revenue	43,714,327	-	-	43,714,327
Selling Costs	(1,146,424)	-	-	(841,501)
Gross Rental Income	4,579,018	582,080	2 655,769	5 655,769
Leasing Costs	(4,292,963)	(172,369)	3 (281,928)	6 (73,689)
Other Income	-	-	-	-
Interest Received*	-	-	4 -	7 -
GST Payments (Liabilities)	(4,271,073)	(42,913)	(52,916)	(4,026,946)
TOTAL NET REVENUE	38,582,885	366,798	320,926	39,427,960
COSTS				
Land and Acquisition	13,887,500	-	-	-
Professional Fees	5,799,006	-	-	-
Construction Costs	50,245,650	-	-	-
Statutory Fees and Contributions	2,904,236	-	-	-
Miscellaneous Costs	-	-	-	-
Miscellaneous Costs	-	-	-	-
Miscellaneous Costs	264,000	-	-	-
Project Contingency (Reserve)	1,435,838	-	-	-
Land Holding Costs	442,434	-	-	8 -
Pre-Sale Commissions	-	-	-	-
Financing Costs (exc Fees)	325,600	-	-	-
GST Refunds (Input Credits)	(7,221,101)	(34,087)	(5,667)	(18,931)
TOTAL COSTS	68,083,164	(34,087)	(5,667)	(18,931)
Net Cash Flow (before Interest & Corporate Tax)	(29,500,279)	400,885	326,592	39,446,891
Cumulative Cash Flow		(69,350,262)	(69,023,670)	(29,576,779)
Corporate Tax	-	-	-	-
Net Cash Flow (before Interest & after Corporate Tax)	(29,500,279)	400,885	326,592	39,446,891
Cumulative Cash Flow		(69,350,262)	(69,023,670)	(29,576,779)
FINANCING				
Equity				
Manual Adjustments (Inject + / Repay -)		0	0	0
Injections	37,525,224	392,078	54,310	127,899
Interest Charged	-	-	-	10 -
Equity Repayment	-	-	-	-
Less Profit Share	-	-	-	-
Equity Balance	(37,525,224)	(8,194,894)	(8,249,204)	(8,377,104)
Equity Cash Flow	(37,525,224)	(392,078)	(54,310)	(127,899)
Project Cash Account				
Surplus Cash Injection	47,195,228	400,885	326,592	39,446,891
Cash Reserve Drawdown	(47,299,679)	(63,249)	(401,017)	(327,428)
Interest on Surplus Cash	104,451	132	835	682
Surplus Cash Balance		401,017	327,428	39,447,573
Loan 1 - Lender 1				
Manual Adjustments (Drawdown - / Repay +)	-	0	0	0
Drawdown	(64,072,444)	-	-	-
Loan Interest Rate (%/ann)		7.00%	7.00%	7.00%
Interest Charged	(3,583,433)	-	-	10 -
Application and Line Fees	-	-	-	9 -
Interest Paid by Equity				